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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,225	12/16/2003	N.R. Gandhi	5334-CIP-CON	6331

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EXAMINER

WEIER, ANTHONY J

ART UNIT	PAPER NUMBER
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1761

MAIL DATE	DELIVERY MODE
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05/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/737,225

Applicant(s)

GANDHI ET AL.

Examiner

Anthony Weier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,12,13 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5, 12, 13, 15, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02076550 taken together with Hsieh et al.

JP 02076550 discloses a process of preparing a soy composition wherein pulverized soybeans are treated with acid (e.g. citric acid) and water (either with the acid or additionally alone in a later step) wherein it is expected that the amount of water added (approximately 2.5:1 with the soy) would provide a material with liquid consistency.

JP 02076550 is silent regarding the dimensions of the pulverized soybeans and the step of treating the liquid soybean mixture to a pressure greater than 2000 psi. Hsieh et al teaches preparation of a soy milk composition including the steps of crushing the soybean, creating a slurry and eventually treating same to a pressure greater than 2000 psi. Hsieh et al teaches the advantage of using powdered soybean to increase the rate of heat transfer and reduce the processing time required for conventional heat soaking of whole beans (col. 2, lines 14-16). Though JP 02076550 already discloses the treatment of pulverized soybeans, Hsieh et al provides a reason

for doing same and provides suggestion via such teaching as to why one would vary the degree of pulverization. More specifically, as for the particle size, it would naturally flow from the teachings of Hsieh et al that size reduction of the soybean relates to heat processing time as a result effective variable, and it would have been further obvious to have arrived at the particular soybean particle size as called for in the instant claims depending on, for example, the processing time desired. And although JP 02076550 is silent regarding a homogenization step, such is further taught, for example, in Hsieh et al (e.g. col. 2, lines 40-43; col. 3, lines 37-50). In general, it would have been further obvious to have incorporated such homogenization step to provide for a more homogeneous product as a matter of preference. As for homogenizing at the high pressure called for in the instant claims, Hsieh et al teaches that homogenization of 1000 psi to 3000 psi will provide "satisfactory" homogenization of the soybean slurry. It would have been further obvious to have employed homogenization at, for example, 8000 psi in the process of JP 02076550 to provide a "satisfactory" homogenization as taught by Hsieh et al.

Claim 15 further calls for the addition of a fat or oil material. Although JP 02076550 is silent regarding same, Hsieh et al teaches the well known inclusion of, for example, corn oil in soybean beverages. It would have been further obvious to have included same as a matter of preference among conventional ingredients.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02076550 taken together with Hsieh et al and Drachenberg et al.

JP 02076550 and Hsieh et al are silent regarding the use of at least one of a

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stabilizer, suspension agent, emulsifier, or combination of same. However, Drachenberg et al teaches the preparation of a similar soybean composition wherein emulsifier is added to hold existing soybean oil in suspension in the final product (see col. 5, lines 47-50). It would have been obvious to one having ordinary skill in the art at the time of the invention to have included same to provide a more uniform product.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02076550 taken together with Hsieh et al and any one of Crank et al, Jolivet et al, and Wagner et al.

JP 02076550 is silent the limitations of claim 6. Although Hsieh et al further discloses that homogenization may be repeated, there is no suggestion that same be done at a lower pressure on a subsequent treatment as called for in claim 6.

Nevertheless, two-stage homogenization using a first pressure greater than a second pressure is notoriously well known in liquid processing (including that of soybean-related materials). For example, Crank et al teaches treatment of a soybean concentrate at a high pressure followed by a lower pressure (col. 12, lines 34-58). Jolivet et al (e.g. col. 2, lines 19-25; Example 1) and Wagner et al (e.g. Example 1) each teach the two-stage homogenization of a soybean composition using a first pressure greater than the second. Absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have employed such two-stage, two-pressure, homogenization in the process of JP 02076550 (modified with Hsieh et al) as an art recognized alternative for treatment of soybean compositions.

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5. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02076550 taken together with Hsieh et al and Koga et al.

The claims further call for a product which is spray dried into a powder. However, it is notoriously well known to spray processed dry soy milk into powders for future preparation as a beverage as taught, for example, by Koga et al (see Abstract). Absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have done same as a conventional, art recognized alternative product form that may be easily reconstituted to prepare a beverage.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02076550 taken together with Hsieh et al and either one of Burr or Crank et al.

Claim 16 further calls for the addition of another milk ingredient. It is notoriously well known to combining milk with soy milk in creating beverages as taught, for example, by either one of Burr (see claim 1) or Crank et al (col. 3, lines 10-27). It would have been obvious to one having ordinary skill in the art at the time of the invention to have employed said soy milk product in conjunction with cow milk as a matter of preference depending on, for example, consideration of a healthier drink, availability of ingredients, and cost of ingredients.

Allowable Subject Matter

7. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In view of Applicant's arguments and the translation of JP 02076550, it is clear that JP 02076550 requires that the temperature not be 50 C or higher. It would not have been obvious to one having ordinary skill in the art at the time of the invention to have modified the temperature therein to the level called for in claim 14 as such would cause degradation of lecithin, a problem JP 02076550 avoids by not heating at 50 C or higher.

Response to Arguments

8. Applicant's arguments filed 2/8/07 have been fully considered but they are not persuasive.

Applicant argues that the primary reference JP '550 teaches away from using temperatures of 50 C or higher and further refers to a translation of JP '550 for evidence. It is noted that JP '550 does indeed teach away from the use of 50 C or greater, and claim 14 has been set aside as containing allowable subject matter for such reason. It should be noted, however, that Hsieh discloses the use of temperatures as low as "about 50" which clearly include the use of a temperature below (albeit just below) 50 C. Thus, Hsieh does set forth a sliver of temperature range (just less than 50 C afforded by the term "about") that does not teach away from the alleged requirement in JP '550 that the temperatures of 50 C and greater not be used.

Applicant further argues that applying the teachings of Hsieh with JP '550 would divert same to a different result (i.e. protein preservation rather than soy protein absorption). Hsieh, however, was applied for other teachings and employing motivation that does not provide a modification that teaches away from JP '550. In

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particular, Hsieh has been applied above to teach the use of powdered/pulverized soybean to reduce processing time for soaking soybean material. Hsieh is further applied for teaching the general use of high pressure to provide a "satisfactory" homogenization of a soybean slurry.

All other arguments have been addressed in view of the rejections as set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Monday-Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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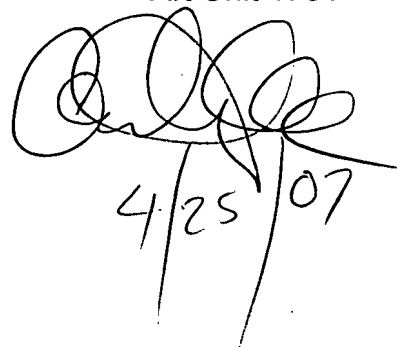
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Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Weier
April 25, 2007

Anthony Weier
Primary Examiner
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4/25/07